

REMARKS/ARGUMENTS

Claims 1 and 33 have been amended. Claims 13-32 and 35-40 have been canceled. Upon entry of the amendment, claims 1-12, 33 and 34 remain pending in the application. Reconsideration of the application is respectfully requested in view of the above amendments and the following remarks. These amendments add no new matter as the claim language is fully supported by the specification and original claims.

I. Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1-12, 33 and 34 stand rejected under 35 U.S.C. § 112, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant traverses this rejection.

The Office Action indicates that the phrase “separation gel” recited in lines 1 and 2 of claim 1 is vague because it is unclear what limitations are required for the gel to be considered a separation gel and unclear whether the analyte present in the gel defines a separation gel.

Claim 1 has been amended to remove the term “separation”. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §112, second paragraph, be withdrawn.

II. Rejections under 35 U.S.C. § 102

Claims 1, 2, 4, 5, 7-12, 33 and 34 are rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Bruchez et al. (US 2002/0155507, hereinafter “Bruchez”). Applicants respectfully traverse this rejection. Claim 1 has been amended to recite that the solid gel is “suitable for separation of biomolecules within the gel by electrophoresis or magnetophoresis”. As such, the rejection will be addressed as it may apply to the amended claim. In addition, claim 33 has been re-written in independent form to include the language from claim 1, so the same arguments apply.

A rejection of claims under 35 U.S.C. § 102 is improper unless each and every element of the claimed subject matter is found, either expressly or inherently described, in a single prior art reference (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); MPEP § 2131).

Currently amended claim 1 is directed to a solid gel matrix defined as including “a solid gel suitable for separation of biomolecules within the gel by electrophoresis or magnetophoresis” and “one or more SERS-enhancing nanoparticles contained in the gel”. The SERS-enhancing nanoparticles contained in the gel further include “an attached probe that binds specifically to an analyte”. Applicants submit that those elements of amended claim 1, and the corresponding dependent claims, are missing from the Bruchez reference, thereby precluding a finding of anticipation.

The Office Action cites Bruchez as teaching a solid gel matrix comprising: a solid, separation gel (polymeric beads as a solid gel, at paragraphs 0194-0196), and one or more SERS-enhancing nanoparticles contained in the separation gel (paragraph 0015) with an attached probe that binds specifically to an analyte (paragraphs 0110, 0126).

A review of Bruchez, however, reveals absolutely no teaching as to a solid gel that is suitable for separation of biomolecules by electrophoresis or magnetophoresis, and which contains one or more SERS-enhancing particles within the gel. In addition, Applicants submit that the cited reference does not anticipate the current claims because the solid polymer beads containing SCNCs taught by Bruchez and cited in the Office Action are not suitable for the separation of biomolecules and, therefore, are distinguishable from the solid gel matrix of the current claims, which includes a solid gel suitable for separation of biomolecules within the gel by electrophoresis or magnetophoresis and one or more SERS-enhancing nanoparticles contained in the separation gel.

Accordingly, for at least the reasons set forth above, it is submitted that the cited reference does not teach each and every element of the claimed invention and, therefore, respectfully request that the rejection under 35 U.S.C. § 102(b) of claims 1, 2, 4, 5, 7-11, 33, and 34 be withdrawn.

III. Rejection Under 35 U.S.C. § 103

Claims 3 and 6 are rejected under 35 U.S.C. § 103, as allegedly being unpatentable over Bruchez et al. (US 2002/0155507) in view of Mirkin et al. (US 2003/0211488 hereinafter "Mirkin"). Applicants respectfully traverse this rejection.

It is alleged in the Office action that it would have been obvious to a skilled artisan to include in the solid gel matrix of Bruchez, Raman active tags of an analog of adenine, or a fluorescent dye, as taught by Mirkin, in order to create distinguishable labels. As discussed above, however, Bruchez does not teach a solid gel matrix including a solid gel suitable for separation of biomolecules within the gel by electrophoresis or magnetophoresis, or the combination of SERS-enhancing nanoparticles having an attached probe contained in the gel, as required by the current claims. Since Mirkin does not provide the teachings that are missing from Bruchez, it is submitted that the failure of the cited references to teach or suggest a solid gel matrix as claimed remains for the reasons set forth above.

Accordingly, Applicants submit that the claimed invention would not have been obvious in view of the cited references and, therefore, respectfully request that the rejection of the claims under 35 U.S.C. § 103 be withdrawn.

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IV. Conclusion

In view of the above amendments and remarks, reconsideration and favorable action on all claims are respectfully requested. In the event any matters remain to be resolved, the Examiner is requested to contact the undersigned at the telephone number given below so that a prompt disposition of this application can be achieved. The Commissioner is hereby authorized to charge any additional fees that may be associated with this communication, or credit any overpayment to Deposit Account No. 07-1896.

Respectfully submitted,

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